

REMARKS

35 U.S.C. 112, first paragraph

Claims 1-5 and 20 have been rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. Applicant respectfully disagrees for the following reasons. It is submitted that the claims contain subject matter which was described in the specification such to enable a person skilled in the art to make and use the invention. In particular, Figures 5A, 5B and 5C shown in the specification illustrate the successive cutting steps for cutting a strip of material containing a reinforced tire component commonly referred to as tire ply or ply. Tire ply is made of a plurality of parallel oriented cord reinforcements which are surrounded by an ultrathin gauge of rubber compared to the cord diameter. Thus the cord reinforcement comprises the vast majority of the total thickness of the ply. Furthermore, the cord reinforcements are very strong compared to the surrounding thin gauge of rubber. The blade need not penetrate at least halfway into the cord reinforced component in order to engage and lift a cord. As described in the specification, the gap is set so that the blade engages or "impacts" a cord. If the gap is set above the anvil to slightly less than or equal to the thickness of the cord reinforced component, this is most certainly to occur. As shown in the drawing 5B, the impacted cord 14 rides up over the blade while an adjacent cord rides below. As the blade traverses across the ply in between two cords, the cut is made. It is somewhat analogous to running your fingernail over a smooth material such as silk or pantyhose, and then catching or snagging your fingernail on a thread, causing the material to run or snag.

Further, the blade gap is maintained at a gap distance d , as described in the specification. Otherwise, the material would not be able to pass under the blade. Once a cord is snagged up onto the blade, the blade passes between two adjacent cords. As the blade traverses, the ply is cut. A person skilled in the art would understand how this is possible

because the rubber surrounding the ply is so thin, it yields. See the enclosed figures which show the invention in actual practice. We have also enclosed a CD-ROM which has a video showing the invention in practice.

With respect to questions pertaining to paragraph 17 and the recitation in the specification pertaining to the second surface oriented at an angle θ_2 greater than or equal to the skive angle α , the embodiment wherein θ_2 equals α , is correct. As stated above, the gap distance d is always maintained as the blade traverses across the strip as it travels between two of the cords.

With respect to questions pertaining to paragraph 17 and the recitation in the specification pertaining to angle θ_n , the angle θ_n is a typographical error and should have been θ_1 . The specification has been amended to correct this error.

With respect to questions pertaining to paragraph 17 and the recitation in the specification pertaining to the skive angle α set to 8 degrees, and θ_1 2 degrees less than the skive angle: all of the angles are measured relative to the horizontal plane.

Claims 1-5 and 20 have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant respectfully disagrees. The gap of the anvil, and the angles θ_1 and θ_2 are part of the claimed invention, and therefore should be given patentable weight. The gap distance (d) is clearly defined in both the claims and the specification as being above the anvil slightly less than or equal to the thickness of the cord reinforced component. A person skilled in the art would understand what this means.

35 U.S.C. 103(a)

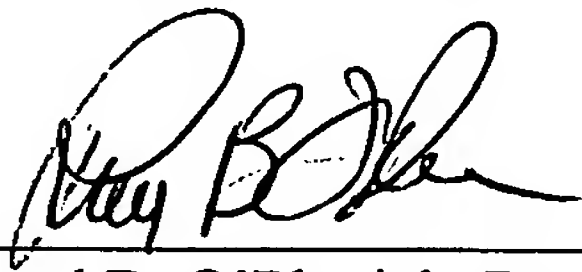
Claims 1-3 and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Bell et al. '508 in view of Benzing II et al. '101. This rejection is respectfully traversed for the following reasons. The Bell reference teaches cutting through unreinforced rubber sheets and does not teach cutting through reinforced ply. Further, Bell does not teach nor suggest orienting his cutting element at the claimed gap distance (d), which is slightly less than or equal to the thickness of the cord reinforced component. According to Bell's specification at column 8, lines 26-36, the free end of the blade 46 is received or anchored in a pocket of a blade rest, which is received in a channel 12 of the anvil. Therefore, Bell does not teach nor describe that the cutting edge of the cutting element is set at a gap distance (d) above the anvil. The Benzing reference, which is owned by Applicant (and the inventor of this case is also a named inventor), teaches a two-step process for cutting through reinforced ply. First the blade is oriented at an angle Beta in order to position the cutting element between two parallel cords. Then the blade is oriented at angle theta in order to complete the cut. See Abstract of Benzing. While Benzing teaches cutting through reinforced ply without cutting through cord, it requires a two step process. Further, the claimed gap distance (d) is not taught. Thus, the references alone or in combination do not teach nor suggest Applicant's claimed process. As Bell et al. '508 in view of Benzing II et al. '101 fails to establish *prima facie* obviousness of the invention as recited in claims 1-3 and 20, it is respectfully requested that this rejection be withdrawn.

Claims 4 and 5 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Bell et al. '508 in view of Benzing II et al. '101 and further in view of Sergel et al. '601 or Oldeman '774. This rejection is respectfully traversed for the following reasons. See the reasons, above. Further, neither the Sergel reference nor the Oldeman reference are concerned with cutting reinforced ply. As Bell et al. '508 in view of Benzing II et al. '101

and further in view of Sergel et al. '601 or Oldeman '774 fails to establish *prima facie* obviousness of the invention as recited in claims 4 and 5, it is respectfully requested that this rejection be withdrawn.

In light of this amendment, all of the claims now pending in the subject patent application are allowable. Thus, the Examiner is respectfully requested to allow all pending claims.

Respectfully submitted,



Richard B. O'Planick, Reg. No. 29,096
Attorney for Applicants

The Goodyear Tire & Rubber Company
Department 823
1144 East Market Street
Akron, Ohio 44316-0001
Telephone: (330) 796-3328
Facsimile: (330) 796-9018

